

**Appendix 3 (as supplied by the authors): Predictors of pneumonia-related mortality by cox proportional hazards regression analysis**

Variables	Unadjusted		Adjusted	
	HR (95% CI)	<i>p</i> value*	HR (95% CI)	<i>p</i> value*
Sleep apnea	1.03 (0.70–1.51)			
Age ≥ 65 years old	14.60 (10.60–20.11)	†	5.48 (3.71–8.10)	†
Male gender	1.34 (0.96–1.87)	0.083	1.48 (1.06–2.08)	0.022
Diabetes mellitus	4.03 (2.95–5.49)	†	1.56 (1.11–2.19)	0.010
Coronary heart disease	4.48 (3.29–6.10)	†	1.10 (0.76–1.60)	
Heart failure	6.51 (4.59–9.24)	†	1.56 (1.05–2.31)	0.028
Cerebrovascular disease	7.92 (5.82–10.79)	†	2.56 (1.79–3.66)	†
Dementia	10.06 (5.30–19.11)	†	2.08 (1.07–4.06)	0.032
Epilepsy	2.57 (1.26–5.24)	0.009	1.20 (0.57–2.50)	
Parkinson's disease	7.07 (3.73–13.43)	†	1.22 (0.62–2.40)	
CKD/ESRD	3.26 (2.29–4.64)	†	1.39 (0.96–2.00)	0.083
Liver cirrhosis	4.97 (2.87–8.61)	†	3.19 (1.83–5.57)	†
GERD	0.67 (0.27–1.63)			
Cancer	7.28 (4.60–11.51)	†	3.44 (2.14–5.52)	†
Asthma	2.40 (1.69–3.42)	†	1.18 (0.80–1.75)	
COPD	3.70 (2.72–5.04)	†	1.35 (0.95–1.93)	0.093
TB	5.68 (3.48–9.28)	†	3.14 (1.89–5.22)	†
Statins	0.64 (0.31–1.30)			
Inhaled steroid	5.39 (2.53–11.49)	†	2.75 (1.26–6.03)	0.011

Abbreviations: HR = hazard ratio; CI = confidence interval; CKD = chronic renal disease; ESRD = end-stage renal disease; GERD = gastro-esophageal reflux disease; COPD = chronic obstructive pulmonary disease; TB = tuberculosis.

\* *p* values > 0.1 are omitted. † indicate *p* value < 0.001